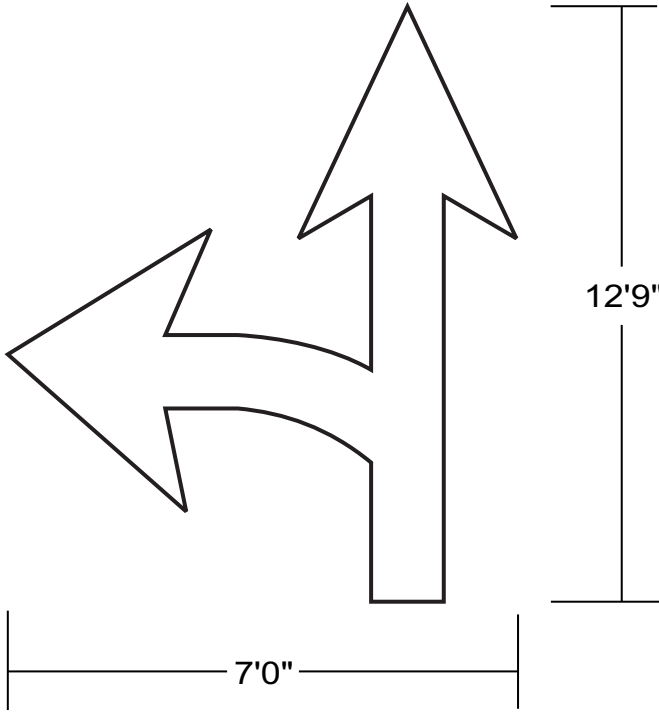




RAE Products & Chemicals Corporation

# PREFORMED THERMOPLASTIC FOR PAVEMENT MARKING

(PR-TH-3527) - COMBO ARROW Symbol 12'9" x 7' , 90 mil. White

Product Description	Recommended Uses						
<p><b>(PR-TH-3527) - COMBO ARROW (Straight, left turn) Symbol, 12'9"x7', 90 mil. White Preformed Thermoplastic Symbol.</b></p> <p>Preformed Thermoplastic is a durable pavement marking system where thermoplastic lane lines, legends and symbols are supplied pre-cut and can be easily installed without specialized equipment. Preformed thermoplastic pavement marking material combines the convenience of pre-cut markings with the performance qualities of hot applied thermoplastic.</p> <p>Engineered for enhanced visibility both day and night, preformed thermoplastic pavement markings are made with brilliant glass beads which are distributed throughout the material during the manufacturing process. As the material wears down additional glass beads are exposed thus ensuring exceptional retro-reflectivity during the life of the preformed thermoplastic pavement marking.</p>  <p>Combo Arrow (Straight, left turn) Preformed Thermoplastic - Item # PR-TH-3527</p>	<p>Used as pavement markings, lane delineations, stop bars, cross walks, legends, symbols, etc. for use over asphalt, concrete, or brick. Use when a more durable and longer lasting marking paint is needed versus liquid marking paints.</p> <tr> <th data-bbox="808 569 1537 619">Product Characteristics</th> </tr> <tr> <td data-bbox="808 619 1537 1255"> <p><b>Specification:</b> AASHTO M-249 or as modified to meet specification requirements.</p> <p><b>Color:</b> Our pavement marking materials are specifically created with color in mind. They have been manufactured to conform to standard traffic marking color requirements. (ASTM D 6628)</p> <p><b>Reflectivity:</b> White 400 min mcd/sq ft/lux. Yellow 250 min mcd/sq ft/lux</p> <p><i>Due to the nature of the installation method, installed retros can vary from one installer to another.</i></p> <p><b>Skid Resistance:</b> Minimum Initial BPN&gt;45 (ASTM E 303)</p> <p><b>Storage:</b> Preformed thermoplastic should be stored horizontally and indoors at temperatures between 50° F (15° C) and 100° F (38° C)</p> <p><b>Shelf Life:</b> 2 years</p> </td> </tr> <tr> <th data-bbox="808 1255 1537 1306">Product Features</th> </tr> <tr> <td data-bbox="808 1306 1537 1732"> <ul style="list-style-type: none"> <li>• Available in 90 &amp; 125 mil thicknesses</li> <li>• Durable long term performance provides economical investment</li> <li>• Lasts 4 to 5 times longer than standard traffic paint</li> <li>• Intermixed beads provide reflectivity throughout life of the line</li> <li>• Easily installed with Magnum heat torch or equivalent</li> <li>• Legends and Symbols come precut to MUTCD standards</li> <li>• Can be installed at temperatures down to 32°F for a longer striping season</li> <li>• Environmentally friendly with zero VOC and heavy metal free pigments.</li> </ul> </td> </tr> <tr> <th data-bbox="808 1732 1537 1782">Safety Precautions</th> </tr> <tr> <td data-bbox="808 1782 1537 2055"> <ul style="list-style-type: none"> <li>• Protective clothing, consisting of leather boots, or work boots, or work shoes, long pants, gloves, safety glasses or a face shield and a safety vest should be worn during application.</li> <li>• ALWAYS WEAR HEAT RESISTANT GLOVES WHEN WORKING WITH PREFORMED THERMOPLASTIC</li> <li>• Portland cement concrete surfaces may spall when heated with the propane torch; therefore safety glasses must be worn when applying to cement concrete surfaces.</li> </ul> </td> </tr>	Product Characteristics	<p><b>Specification:</b> AASHTO M-249 or as modified to meet specification requirements.</p> <p><b>Color:</b> Our pavement marking materials are specifically created with color in mind. 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# PREFORMED THERMOPLASTIC FOR PAVEMENT MARKING

(PR-TH-3527) - COMBO ARROW Symbol 12'9" x 7' , 90 mil. White

## Application Instructions



### Recommended Equipment

- Magnum Torch with 25' hose
- Infrared Thermometer
- Tape Measure
- Chalk String
- Blower
- Chalk
- Utility Knife
- Putty Knife
- Water Sprayer
- Straight Edge
- Safety Glasses
- Safety Vest
- Leather Gloves



1) Clean Surface



2) Layout Markings



3) Surface Preheat



4) Place Markings



5) Heat The Marking



6) Check Bond



Thermo Marking Applied

- 1) Clean Surface:** Clean intended application area thoroughly. All loose particles, sand, dust, etc. must be removed. Utilize a power blower or compressed air if available, otherwise sweep completely.
- 2) Layout \ Pre-mark Markings:** Position all connecting parts (lines, legends, or symbols) onto the pavement surface where marking will be placed. There should be no gaps between the adjoining segments. Outline/pre-mark the area where the marking will be placed using a chalk line or crayon. Check to ensure that proper layout and alignment is obtained before moving to step three. Once the marking has been traced, or the area delineated, remove the marking from the pavement.
- 3) Surface Pre-Heat Instructions:** Using a magnum Heat Torch or similar heat source, utilize the pre-set pilot valve setting to get a blue flame with an orange or yellowish tip. Then squeeze the torch handle to achieve maximum output. Hold the torch nozzle 8-10 inches above the pavement. Using the torch in a circular motion, preheat the surface to a minimum temperature of 275°F. Extend the heating 3-6 inches outside of the pre-marked area. Do not attempt to preheat an area larger than 4' x 4' at any time. Properly heated asphalt should turn a deep solid black color. Note: concrete surfaces may spall when heated with the torch; therefore safety glasses must always be worn when applying onto Portland cement surfaces. Use the infrared thermometer to check the surface temperature for a minimal reading of 275°F across the entire target area.
- 4) Place Marking:** Once the surface temperature of the targeted area reaches 275°F, immediately position the first segment with exposed glass beads up. Do not apply in pieces larger than 4' x 4' at any time. If using a torch similar to the Magnum, the applicator should utilize the preset pilot valve setting (do not squeeze handle) to get orange tipped flame to heat the material. Do not operate the Magnum torch at maximum output. Hold the torch so that the torch nozzle is 6-8 inches over the Preformed Thermoplastic material. If material is splattering with the introduction of the torch, the flame is too close to the material or the pilot valve needs to lower the intensity and eliminate the splattering.

**5) Heat / Torch the Marking:** Begin heating the placed marking by moving the flame from your torch slowly but steadily over the material. The material must be heated to its melting temperature to achieve a bond with the pavement. Insufficient heat will result in inadequate bonding and failure. Overheating the material will sink the top coating of beads into the material and result in pavement markings with low retroreflective values. To ensure that heat is evenly applied to the entire marking, move the torch in a sweeping motion, approximately 2' wide, keeping the nozzle of the torch about 6 to 8 inches above the material. *Caution: Maintain a minimum distance of 6 inches between the torch nozzle and the material. Any closer will cause superficial scorching of the material without adequate melting throughout.*

During heating, Preformed Thermoplastic will soften and begin to conform to the pavement surface to which it is applied. Additionally, the material may bubble and change color, turning slightly darker or paler. If the material does change color, move the torch to another section to avoid scorching that material.

**6) Check Bond:** Inspect the recently applied marking to ensure that complete bonding has occurred over the entire area. After the product has cooled to near ambient temperature, cut an area in the interior of the material with a chisel where it appears the material received the least amount of heat. For white product this will appear the whitest in color.

- Applied on asphalt: If the material can be lifted without evidence of asphalt on the underside, insufficient heat has been applied.
- Applied on Portland cement concrete: When trying to lift the product, adequate bonding has occurred if the thermoplastic separates and part of the thermoplastic remains stuck to the pavement.

**7) Beads:** Preformed Thermoplastic is manufactured with surface applied and intermix glass beads to provide both high initial retroreflectivity and sustained reflectivity throughout its useful life. The product can be supplied without pre-applied surface beads (i.e. reversible turn arrows). When working with non-beaded material, beads must be applied to the surface in a uniform and even manner during application while the material is in the molten state to provide adequate initial retroreflectivity.

**8) Dry Time:** Preformed Thermoplastic will cool and set within a couple of minutes of application. Dry times will vary based on roadway temperature, thickness of material and the amount of heat applied during application. If desired, setting time can be reduced by covering the applied marking with water after application.